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PROGNOSTIC VALUE OF CORONARY COMPUTED TOMOGRAPHIC ANGIOGRAPHY IN ASYMPTOMATIC PATIENTS

ACC Poster Contributions
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Session Title: Prognostic Value of CCTA
Abstract Category: CT Coronary Angiography
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Background: Several studies have demonstrated a high diagnostic accuracy of coronary computed tomography angiography (CCTA) for detection of obstructive coronary artery disease (CAD) and predicting cardiac events in patients with intermediate risk for CAD, but the predictive value of CCTA in asymptomatic patients is unclear.

Methods: We analyzed 451 consecutive asymptomatic patients undergoing CCTA between December 2003 and November 2007. The primary endpoint of the study was the occurrence of cardiac events defined as cardiac death, nonfatal myocardial infarction, unstable angina requiring hospitalization and late revascularization (>90 days after CCTA) during a median follow-up of 27.5 months.

Results: 229 patients (54%) had nonobstructive coronary lesions and 107 patients (24%) obstructive CAD. During follow-up, 2 patients presented with unstable angina and 5 with stable angina requiring revascularization. Patients with obstructive CAD had a significantly higher event rate than those without obstructive CAD (risk ratio 9.4, 95% confidence interval 2.5 to 35.5, p<0.001 see also Figure below). In 217 patients (48%) the clinically assessed cardiovascular risk could be reclassified by CCTA from intermediate or high to low risk.

Conclusions: Although the event rate is low in asymptomatic patients, CCTA can reliably predict further cardiac events and reclassify two third of the patients regarding their cardiovascular risk.